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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,579	04/11/2006	Andrea Giraldo	NL 031206	9552

24737 7590 11/12/2008
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
SADIO, INSA	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
11/12/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/575,579	GIRALDO ET AL.	
	Examiner	Art Unit	
	INSA SADIO	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter. **Claim 13** is directed to a computer program. As such, it is intended to be manufactured. It is a computer related invention: It is unclear if the instruction is necessarily in executable form. Therefore, claim 13 is rejected as non-statutory.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12 and 13 are rejected under 35 U.S.C. 112, first paragraph, because the "means for carrying" and "means for enabling" are A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable

structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor. (see MPEP 2164.08 (a)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

I. Claim 1, 5, 7, 8, 9, 10, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al. (US Patent number 5,495,353), hereinafter referenced as Yamazaki, In view of Friedman et al. (US Patent number 4,929,936), hereinafter referenced as Friedman.

Regarding claim 1, Yamazaki discloses a color display panel comprising: at least one pixel having a sub-pixel (see col 11 L 33-34) circuit of a type comprising a light-emitting cell for emitting light (see col 3 L 41-44,Fig. 3 [42]).
A data line (see col 12 L 62-64, VGG lines are equivalent to data lines) for passing a signal controlling the emission of light by the light-emitting cell (see col 3 L 41-44, Fig. 3 [42]) to the sub-pixel circuit, the sub-pixel circuit further comprising at least two active components (see Fig. 10 (A) [51-2, 41-2]) controlled by the signal for applying respective voltages to the cell (see Fig. 3 [42]) in dependence on respective reference voltages.

However, Yamazaki fails to disclose wherein said **a light-emitting cell for emitting light with a first spectral distribution when a voltage in a first operating range is applied, and for emitting light with a second spectral distribution when a voltage in a second operating range is applied, the second spectral distribution differing from the first spectral distribution**.

However, Friedman discloses a LED to illuminate in different colors with different applied voltages (see col 1 L 58-63).

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Yamazaki's liquid crystal layer by Friedman's single LED having different colors because it saves space form using one LED to display multi color.

Regarding claim 5, Yamazaki discloses two active components (Fig. 10 (A) [51-1 and 41-1]) arranged in the same pattern as the claimed invention. Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to provide wherein said **a first one of the at least two active components (Fig. 10 (A) [51-1]) is arranged to function as a source of current to the light-emitting cell (Fig. 15 [42]) and a further one of the at least two active components (Fig. 10 (A) [41-1]) is arranged to function as a sink of current from the light-emitting cell (Fig. 15 [42])**.

As to claim 9, 10, and 12, they are rejected the same as claim 1 above except claim 9 is a method claim.

As to claim 13, Yamazaki and Friedman teach the claim limitation of 9 above, but fail to teach the program carrying out the method. However, it would have been obvious to one ordinary skill in the art to recognize that a computer program can perform the method of claim 9.

II. Claim 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Friedman and further in view of Nakamura et al.(US Publication number 2003/0016191), hereinafter referenced as Nakamura.

Regarding claim 2, Yamazaki in view of Friedman disclose the limitation of claim 1 above.

However, Yamazaki in view of Friedman fail to disclose wherein said **comprising a further data line, at least one of the active components in the sub-pixel circuit being independently controllable by the signal supplied through an associated one of the data lines.**

However, Nakamura discloses signal lines (see para [0010], Fig. 8 [107] equivalent to data lines) which independently control active component (Fig. 8 [102]) in the subpixel by image data voltage (equivalent to signal).

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Yamazaki's subpixel by adding another data line as taught by Nakaruma, for the purpose of setting a specific voltage on each data line.

Regarding claim 3, Yamazaki in view of Friedman disclose the limitation of claim 1 above.

However, Yamazaki in view of Friedman fail to disclose wherein said **further comprising a storage element for maintaining a signal level controlling one of the active components at a level determined by a level of the signal supplied through the data line prior to interruption of supply of that signal to the sub-pixel circuit**.

However, Nakamura discloses a memory capacitance (see para [0010], Fig. 8 [111] equivalent to storage element) for storing image data voltage (equivalent to signal).

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Yamazaki's subpixel by adding a storage element, for the purpose of maintaining the voltage of the active component at the time when the voltage supply is cut off.

IV. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Friedman and further in view of Rudolph (US Patent number 5,825,136).

Regarding claim 4, Yamazaki in view of Friedman disclose the limitation of claim 1 above.

However, Yamazaki in view of Friedman fail to disclose wherein said **the active components are comprised in a bi-stable circuit, switchable between two states under control of the signal.**

However, Rudolph discloses a bistable switching unit (see col.6 L51-54 equivalent to bi-stable circuit).

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate Yamazaki's active component in a bistable circuit, for the purpose to facilitate the operation from one state to another.

V. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Friedman and further in view of Dolinar et al.(US Patent number 4,797,667), hereinafter referenced as Dolinar.

As of claim 11, Yamazaki and Friedman teach the claim limitation of 9 above.

However, Yamazaki in view of Friedman fail to disclose wherein said **comprising supplying at least one pre-conditioning pulse to the sub-pixel circuit (4,5) for setting the respective voltages to a value within a sub-range at a substantially extreme end of an operating range furthest removed from the other operating range**.

However, Dolinar discloses a negative 160 volts that preconditions pixels for the application of the data voltage (see col.5 L 52-54). It is obvious that applying a negative 160 volts that preconditions pixels for the application of the data voltage would remove the previous voltages for the application of the data voltage.

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify Yamazaki's subpixel adding a method that would supply a preconditioning pulse the subpixel circuit for setting voltages to a value within a subrange, for the purpose of getting rid of mixed colors between two frames.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to INSA SADIO whose telephone number is (571)270-5580. The examiner can normally be reached on MONDAY through FRIDAY 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

INSA SADIO
Examiner
Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629